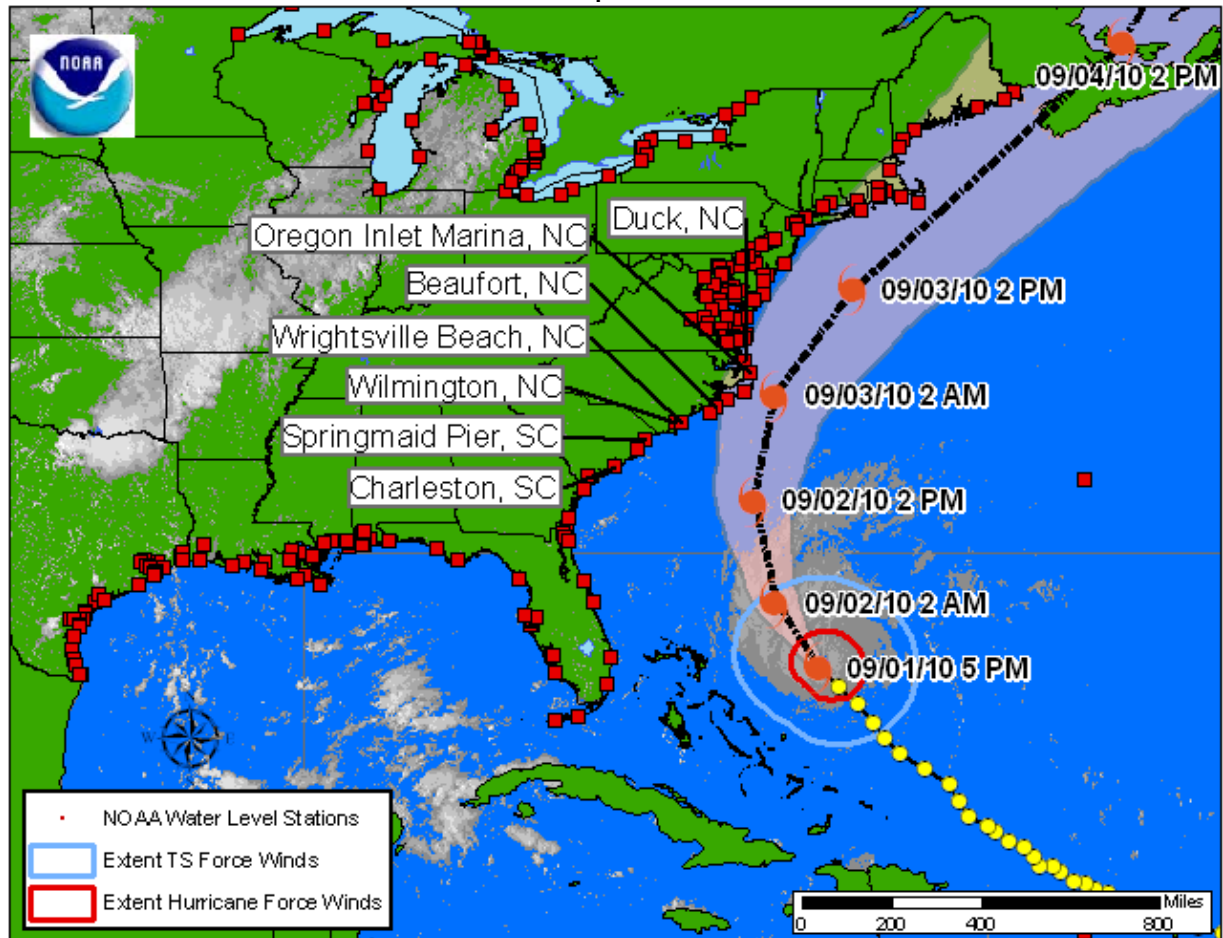




Hurricane EARL QuickLook
Posted: 18:00 EDT 09/01/2010

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/01/2010 18:00 EDT, water levels along the eastern U.S. coast from South Carolina to North Carolina coastline are at or near predicted. Winds are increasing and range from 15 to 25 knots. Barometric pressure is falling across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

CHARLESTON, SC: Next predicted high tides are 4.70 ft (1.43 m) at 09/02/2010 02:04 EDT and 4.70 ft (1.43 m) at 09/02/2010 02:04 EDT.

SPRINGMAID PIER, SC: Next predicted high tides are 4.42 ft (1.35 m) at 09/02/2010 01:53 EDT and 5.49 ft (1.67 m) at 09/02/2010 01:53 EDT.

WILMINGTON, NC: Next predicted high tides are 3.90 ft (1.19 m) at 09/02/2010 03:35 EDT and 4.49 ft (1.37 m) at 09/02/2010 03:35 EDT.

WRIGHTSVILLE BEACH, NC: Next predicted high tides are 3.41 ft (1.04 m) at 09/02/2010 01:36 EDT and 4.36 ft (1.33 m) at 09/02/2010 01:36 EDT.

BEAUFORT, NC: Next predicted high tides are 2.78 ft (0.85 m) at 09/02/2010 02:03 EDT and 3.47 ft (1.06 m) at 09/02/2010 14:51 EDT.

OREGON INLET MARINA, NC: Next predicted high tides are 1.06 ft (0.32 m) at 09/02/2010 02:05 EDT and 1.29 ft (0.39 m) at 09/02/2010 02:05 EDT.

DUCK, NC: Next predicted high tides are 2.77 ft (0.84 m) at 09/02/2010 01:38 EDT and 3.70 ft (1.13 m) at 09/02/2010 01:38 EDT.

For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website. For more information or archived products and reports, please see the [Storm QuickLook](#) homepage.

Analyst:WFR

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE EARL ADVISORY NUMBER 30

...DANGEROUS AND LARGE HURRICANE EARL POSES A THREAT TO THE MID-ATLANTIC COAST...WATCHES AND WARNINGS EXTENDED NORTHWARD THROUGH MASSACHUSETTS...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY...

A TROPICAL STORM WARNING HAS BEEN ISSUED FROM THE NORTH CAROLINA/VIRGINIA BORDER TO SANDY HOOK NEW JERSEY...INCLUDING DELAWARE BAY SOUTH OF SLAUGHTER BEACH AND THE CHESAPEAKE BAY SOUTH OF NEW POINT COMFORT.

A HURRICANE WATCH HAS BEEN ISSUED FROM WOODS HOLE TO SAGAMORE BEACH MASSACHUSETTS...INCLUDING MARTHAS VINEYARD AND NANTUCKET.

A TROPICAL STORM WATCH HAS BEEN ISSUED FROM SANDY HOOK NEW JERSEY TO WOODS HOLE MASSACHUSETTS...INCLUDING BLOCK ISLAND AND LONG ISLAND SOUND.

A TROPICAL STORM WATCH HAS BEEN ISSUED FROM NORTH OF SAGAMORE BEACH TO THE MOUTH OF THE MERRIMACK RIVER MASSACHUSETTS.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A HURRICANE WARNING IS IN EFFECT FOR...

*** BOGUE INLET NORTH CAROLINA NORTHEASTWARD TO THE NORTH CAROLINA/VIRGINIA BORDER INCLUDING THE PAMLICO AND ALBEMARLE SOUNDS.**

A HURRICANE WATCH IS IN EFFECT FOR...

*** NORTH OF THE NORTH CAROLINA/VIRGINIA BORDER TO CAPE HENLOPEN DELAWARE.**

*** WOODS HOLE TO SAGAMORE BEACH MASSACHUSETTS...INCLUDING MARTHAS VINEYARD AND NANTUCKET.**

A TROPICAL STORM WARNING IS IN EFFECT FOR...

*** FROM CAPE FEAR TO WEST OF BOGUE INLET NORTH CAROLINA.**

*** FROM THE NORTH CAROLINA/VIRGINIA BORDER TO SANDY HOOK NEW JERSEY...INCLUDING DELAWARE BAY SOUTH OF SLAUGHTER BEACH AND THE CHESAPEAKE BAY SOUTH OF NEW POINT COMFORT.**

A TROPICAL STORM WATCH IS IN EFFECT FOR...

*** SANDY HOOK NEW JERSEY TO WOODS HOLE MASSACHUSETTS...INCLUDING BLOCK ISLAND AND LONG ISLAND SOUND.**

*** NORTH OF SAGAMORE BEACH TO THE MOUTH OF THE MERRIMACK RIVER MASSACHUSETTS.**

A HURRICANE WARNING MEANS THAT HURRICANE CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA. A WARNING IS TYPICALLY ISSUED 36 HOURS BEFORE THE ANTICIPATED FIRST OCCURRENCE OF TROPICAL-STORM-FORCE WINDS...CONDITIONS THAT MAKE OUTSIDE PREPARATIONS DIFFICULT OR DANGEROUS. PREPARATIONS TO PROTECT LIFE AND PROPERTY SHOULD BE RUSHED TO COMPLETION.

A HURRICANE WATCH MEANS THAT HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA. A WATCH IS TYPICALLY ISSUED 48 HOURS BEFORE THE ANTICIPATED FIRST OCCURRENCE OF TROPICAL-STORM-FORCE WINDS...CONDITIONS THAT MAKE OUTSIDE PREPARATIONS DIFFICULT OR DANGEROUS.

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA WITHIN 36 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...GENERALLY WITHIN 48 HOURS.

INTERESTS IN NORTHERN NEW ENGLAND AND SOUTHEASTERN CANADA SHOULD MONITOR THE PROGRESS OF EARL.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

DISCUSSION AND 48-HOUR OUTLOOK

EARL IS MOVING TOWARD THE NORTHWEST NEAR 17 MPH. THIS MOTION IS EXPECTED TO CONTINUE TONIGHT WITH A GRADUAL TURN TO THE NORTH ON THURSDAY. ON THE FORECAST TRACK...THE CORE OF THE HURRICANE WILL APPROACH THE NORTH CAROLINA COAST BY LATE THURSDAY.

MAXIMUM SUSTAINED WINDS HAVE INCREASED TO NEAR 135 MPH WITH HIGHER GUSTS. EARL IS AGAIN A CATEGORY FOUR HURRICANE ON THE SAFFIR-SIMPSON HURRICANE WIND SCALE. SOME FLUCTUATIONS IN INTENSITY ARE LIKELY TONIGHT AND THURSDAY...BUT A GRADUAL WEAKENING TREND IS ANTICIPATED THEREAFTER.

EARL IS STILL A LARGE HURRICANE AND GROWING. HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 90 MILES FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 200 MILES.

HAZARDS AFFECTING LAND

WINDS...TROPICAL STORM FORCE WINDS ARE EXPECTED TO REACH THE NORTH CAROLINA COAST WITHIN THE WARNING AREA BY THURSDAY AFTERNOON WITH HURRICANE FORCE WINDS OCCURRING BY LATE THURSDAY. TROPICAL STORM FORCE WINDS WILL LIKELY REACH THE COAST FROM VIRGINIA NORTHWARD TO NEW JERSEY BY EARLY FRIDAY.

STORM SURGE...A DANGEROUS STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 3 TO 5 FEET ABOVE GROUND LEVEL WITHIN THE HURRICANE WARNING AREA. ELSEWHERE...STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 1 TO 3 FEET ABOVE GROUND LEVEL WITHIN THE TROPICAL STORM WARNING AREA. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE AND DESTRUCTIVE WAVES.

RAINFALL...ACCUMULATIONS OF 2 TO 4 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 6 INCHES...ARE EXPECTED OVER PORTIONS OF EASTERN NORTH CAROLINA INCLUDING THE OUTER BANKS.

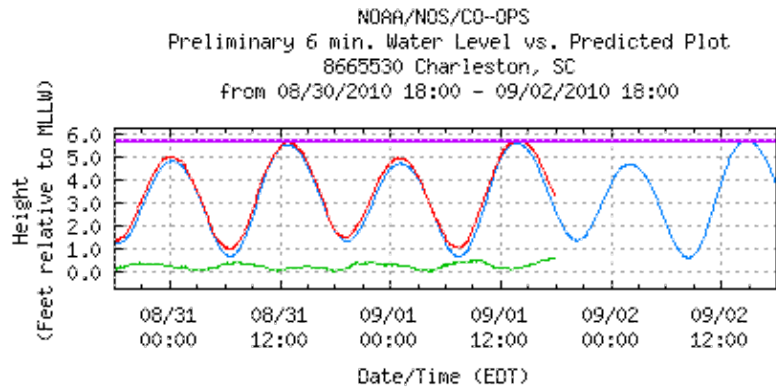
SURF...LARGE SWELLS FROM EARL WILL CONTINUE TO AFFECT THE BAHAMAS AND THE EAST COAST OF THE UNITED STATES THROUGH FRIDAY. THESE SWELLS WILL LIKELY CAUSE DANGEROUS SURF CONDITIONS AND RIP CURRENTS.

FORECASTER AVILA

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Charleston - Water Level](#), [Charleston - Winds](#), [Charleston - Barometric](#), [Charleston - Air/Water Temp](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Winds](#), [Springmaid Pier - Barometric](#), [Springmaid Pier - Air/Water Temp](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Wrightsville Beach - Air/Water Temp](#), [Wilmington - Water Level](#), [Wilmington - Barometric](#), [Wilmington - Air/Water Temp](#), [Beaufort - Water Level](#), [Beaufort - Winds](#), [Beaufort - Barometric](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Oregon Inlet Marina - Barometric](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#).

Charleston, SC - [Return to List](#)



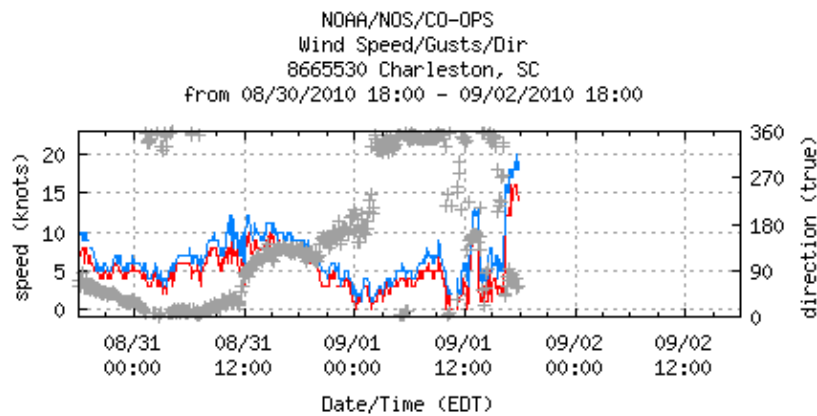
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 09/01/2010 17:48 (EDT)

Relative to **MLLW**: **Observed: 3.36 ft. Predicted: 2.81 ft. Residual: 0.55 ft.**

Historical Maximum Water Level: Sep 21 1989, 6.76 ft. above **MHHW**

Charleston, SC - [Return to List](#)

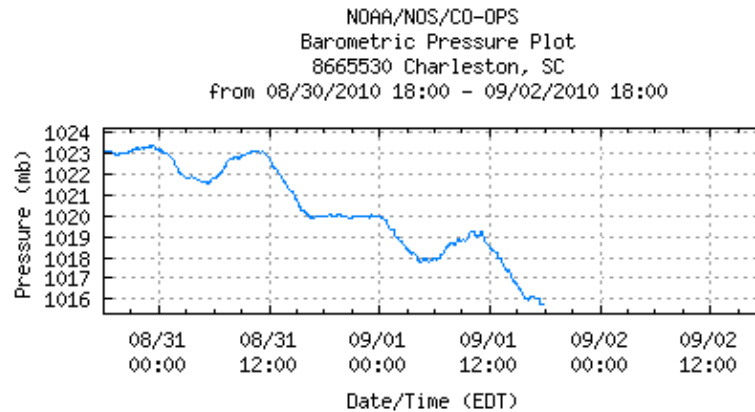


speed — gusts — direction +

Last Observed Sample: 09/01/2010 17:48 (EDT)

Wind Speed: 14 knots Gusts: 18 knots Direction: 059° T

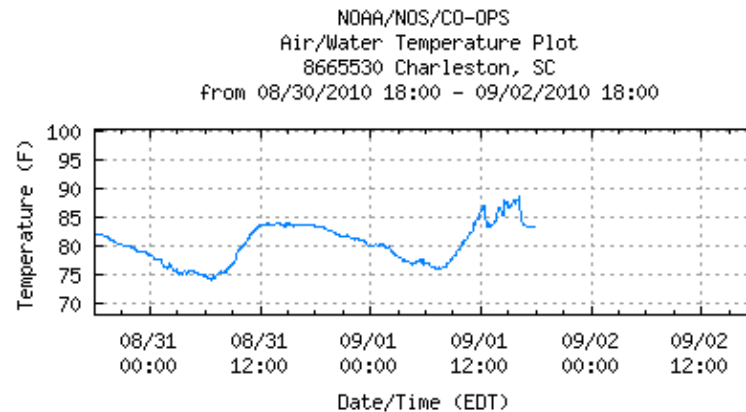
Charleston, SC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Barometric Pressure: 1015.8 mb

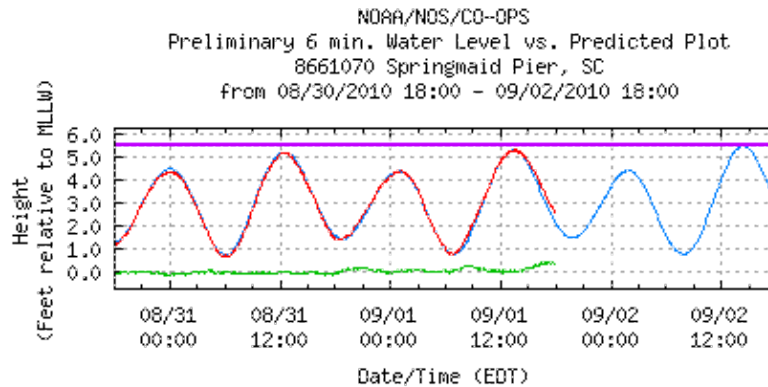
Charleston, SC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Water Temperature: n/a Air Temperature: 83.3° F

Springmaid Pier, SC - [Return to List](#)



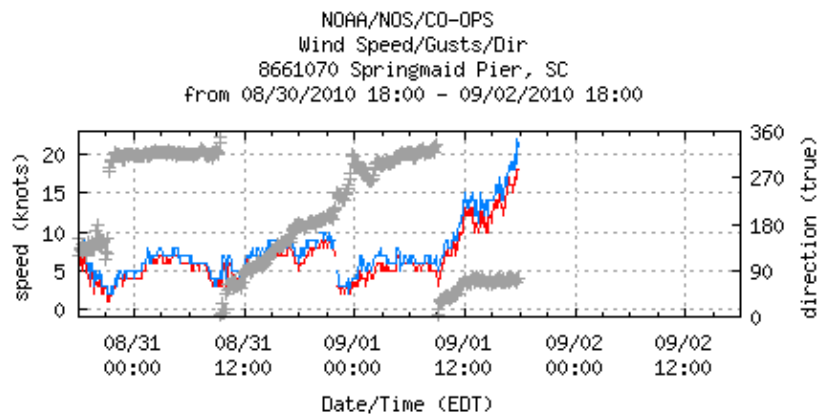
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 09/01/2010 17:48 (EDT)

Relative to **MLLW**: **Observed: 2.59 ft. Predicted: 2.24 ft. Residual: 0.35 ft.**

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. above **MHHW**

Springmaid Pier, SC - [Return to List](#)

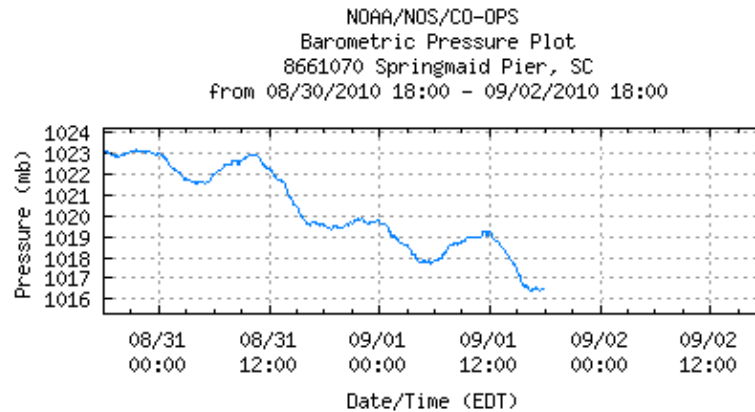


speed — gusts — direction +

Last Observed Sample: 09/01/2010 17:48 (EDT)

Wind Speed: 18 knots Gusts: 21 knots Direction: 074° T

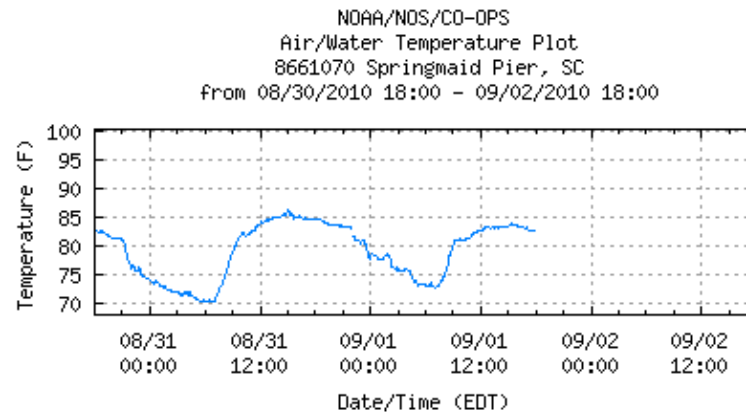
Springmaid Pier, SC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Barometric Pressure: 1016.5 mb

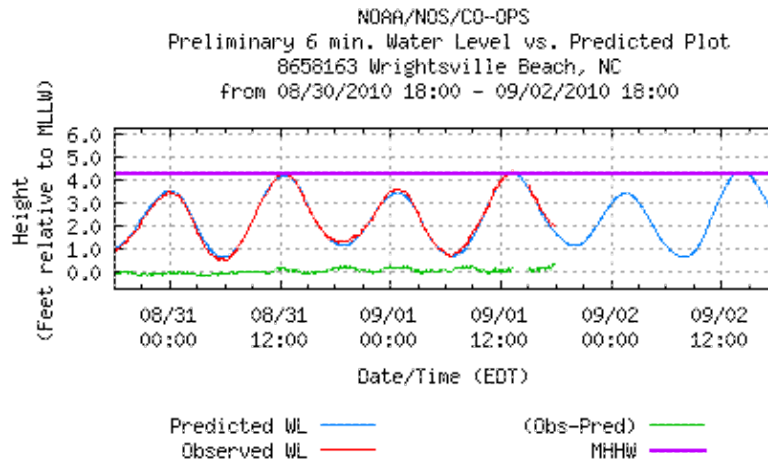
Springmaid Pier, SC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Water Temperature: n/a Air Temperature: 82.8° F

Wrightsville Beach, NC - [Return to List](#)

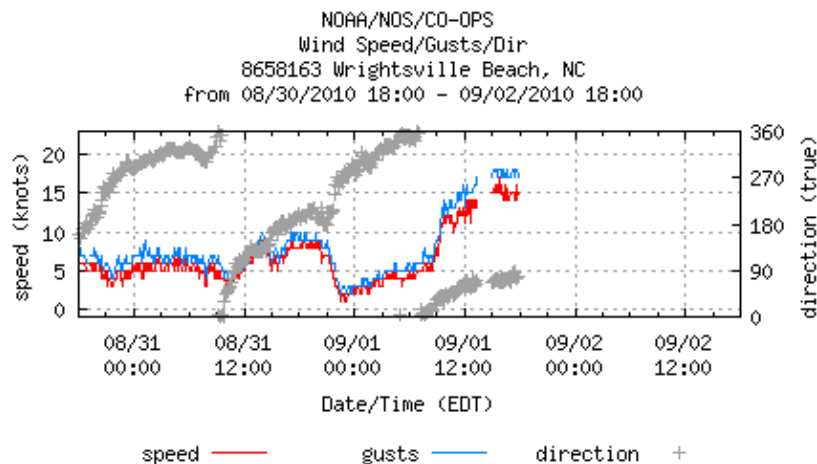


Last Observed Sample: 09/01/2010 17:48 (EDT)

Relative to **MLLW**: **Observed: 2.03 ft. Predicted: 1.75 ft. Residual: 0.28 ft.**

Historical Maximum Water Level: Sep 25 2008, 2.78 ft. above **MHHW**

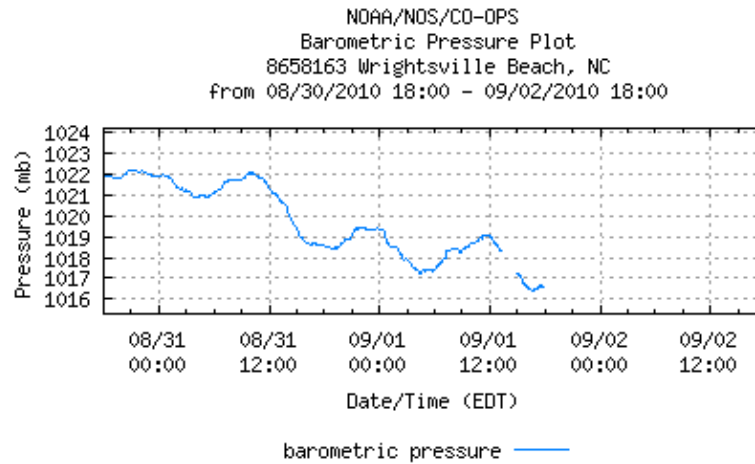
Wrightsville Beach, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Wind Speed: 15 knots Gusts: 17 knots Direction: 079° T

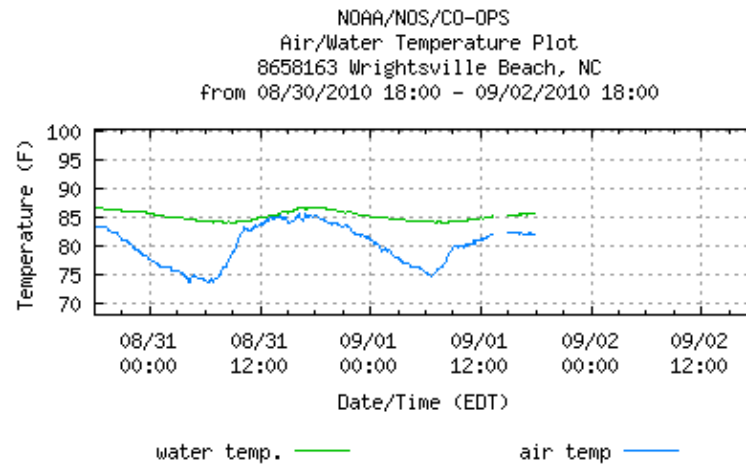
Wrightsville Beach, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Barometric Pressure: 1016.6 mb

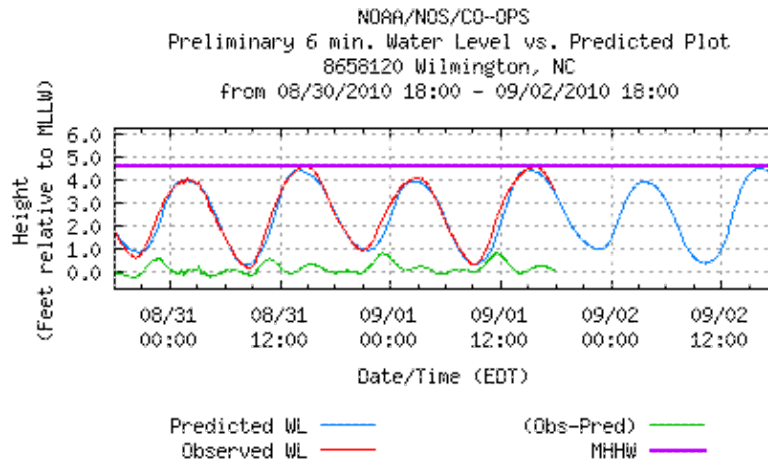
Wrightsville Beach, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Water Temperature: 85.8° F Air Temperature: 82.2° F

Wilmington, NC - [Return to List](#)

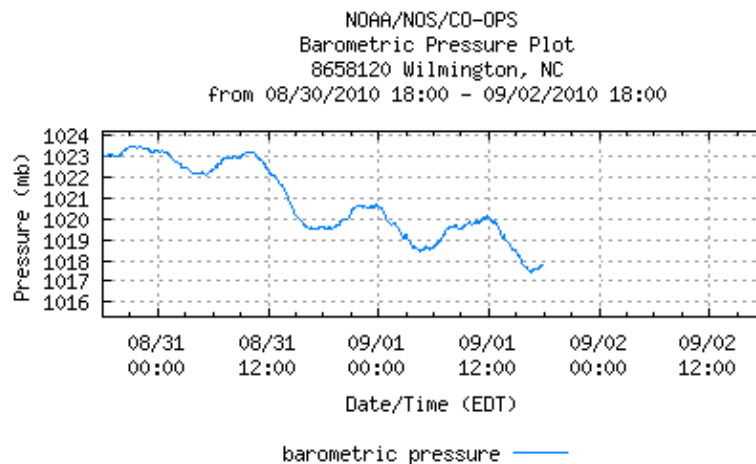


Last Observed Sample: 09/01/2010 17:48 (EDT)

Relative to **MLLW**: **Observed: 3.55 ft. Predicted: 3.51 ft. Residual: 0.04 ft.**

Historical Maximum Water Level: Oct 15 1954, 3.47 ft. above **MHHW**

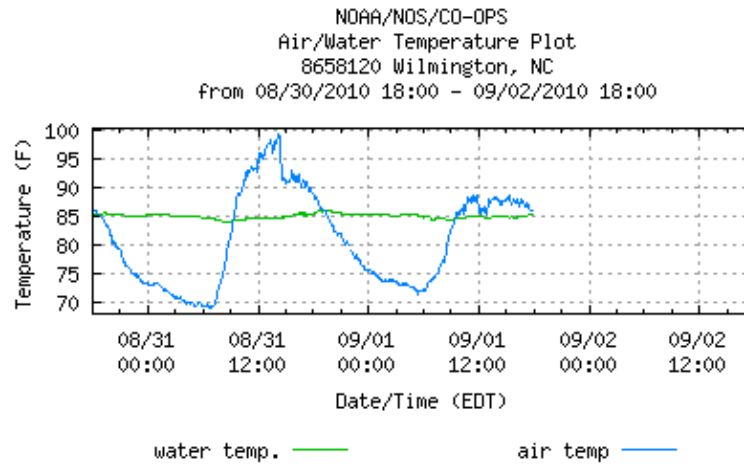
Wilmington, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Barometric Pressure: 1017.8 mb

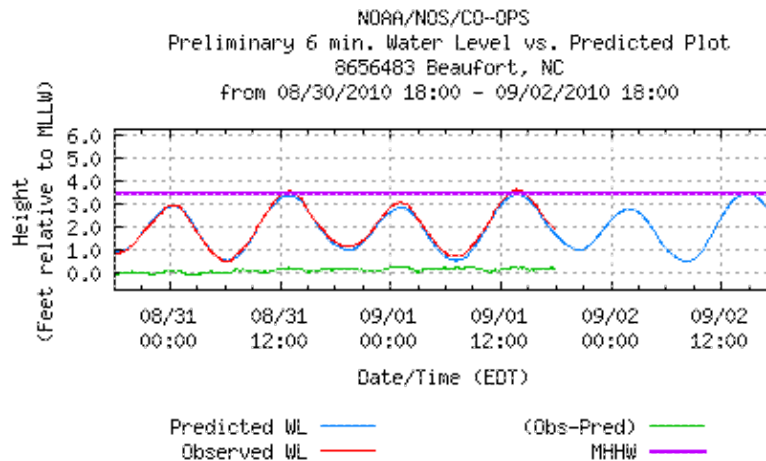
Wilmington, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Water Temperature: 85.5° F Air Temperature: 86.2° F

Beaufort, NC - [Return to List](#)

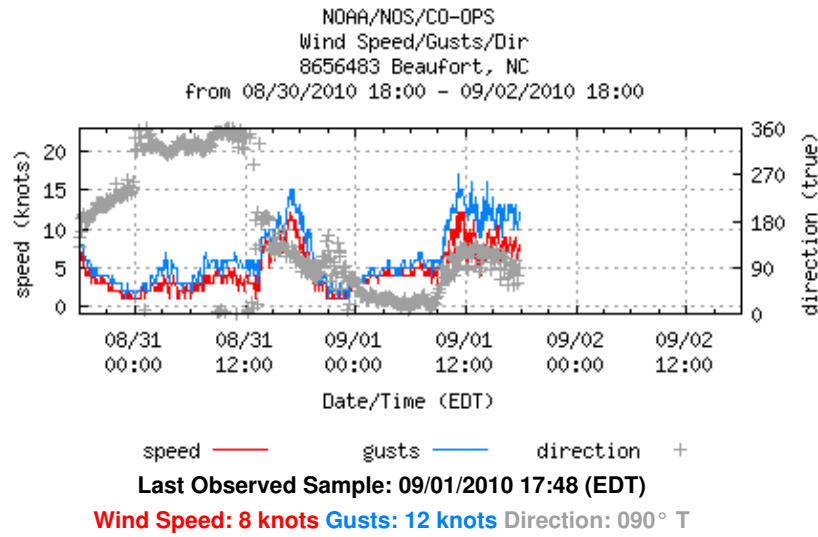


Last Observed Sample: 09/01/2010 17:48 (EDT)

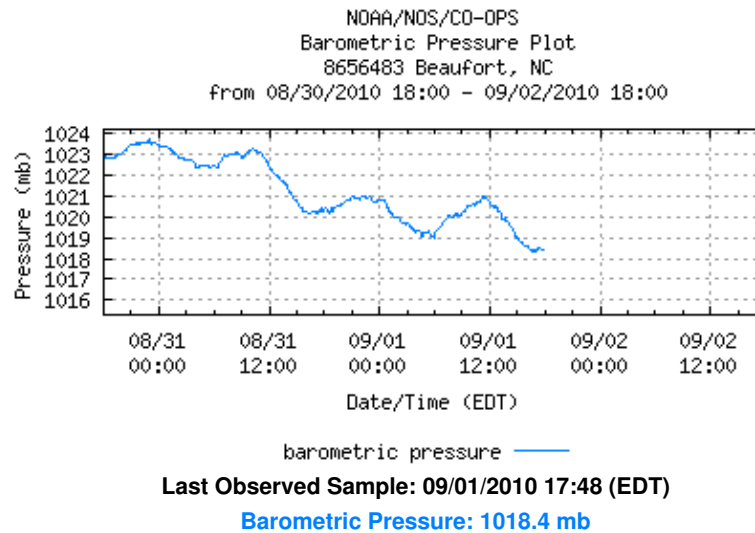
Relative to **MLLW**: Observed: 1.90 ft. Predicted: 1.72 ft. Residual: 0.18 ft.

Historical Maximum Water Level: Sep 16 1999, 2.74 ft. above **MHHW**

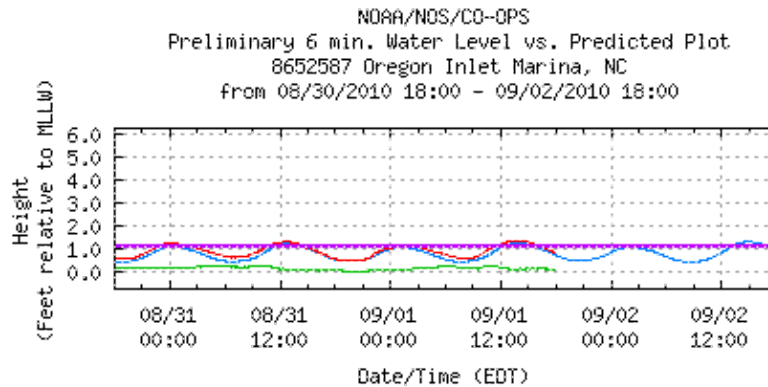
Beaufort, NC - [Return to List](#)



Beaufort, NC - [Return to List](#)



Oregon Inlet Marina, NC - [Return to List](#)



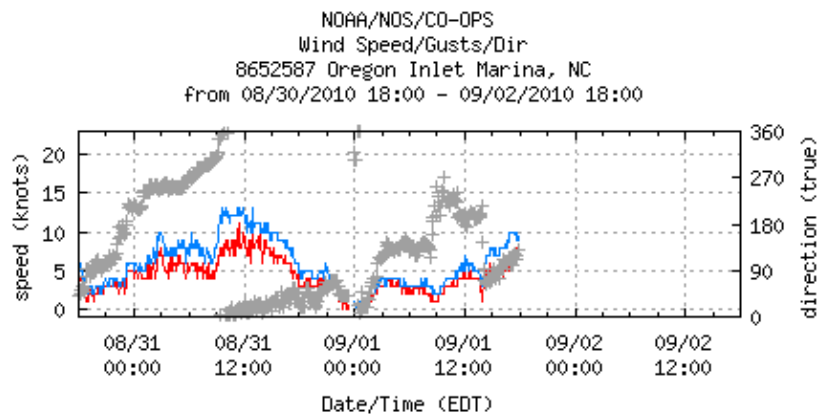
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 09/01/2010 17:48 (EDT)

Relative to **MLLW**: **Observed: 0.81 ft. Predicted: 0.73 ft. Residual: 0.08 ft.**

Historical Maximum Water Level: Sep 16 1999, 4.49 ft. above **MHHW**

Oregon Inlet Marina, NC - [Return to List](#)

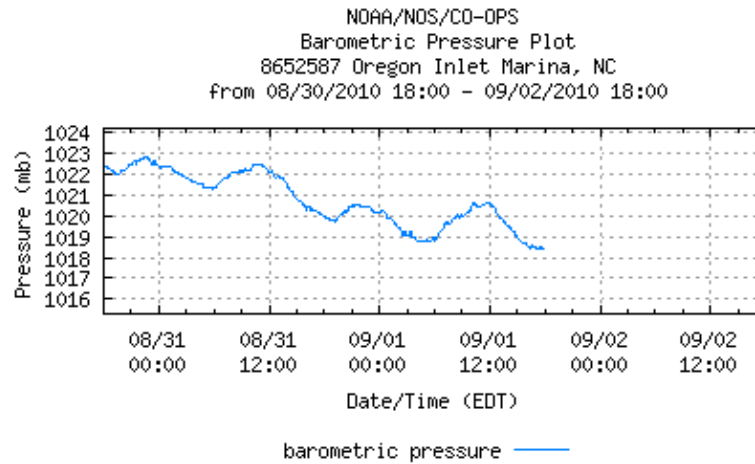


speed — gusts — direction +

Last Observed Sample: 09/01/2010 17:48 (EDT)

Wind Speed: 7 knots Gusts: 9 knots Direction: 131° T

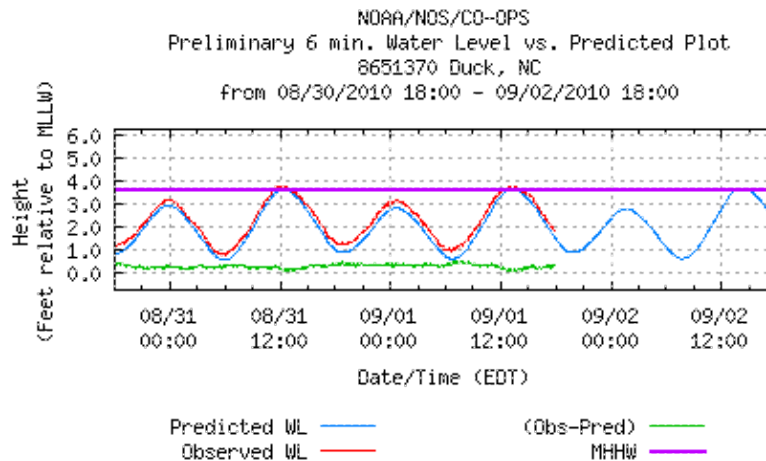
Oregon Inlet Marina, NC - [Return to List](#)



Last Observed Sample: 09/01/2010 17:48 (EDT)

Barometric Pressure: 1018.4 mb

Duck, NC - [Return to List](#)

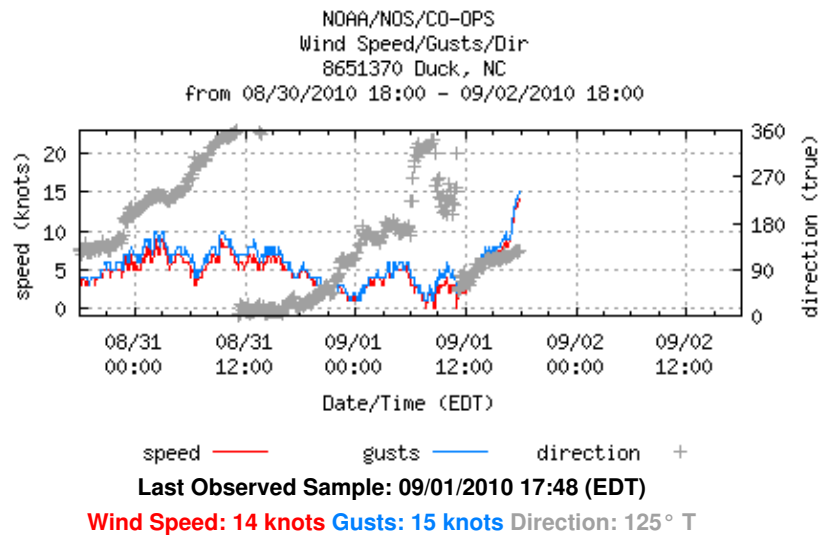


Last Observed Sample: 09/01/2010 17:48 (EDT)

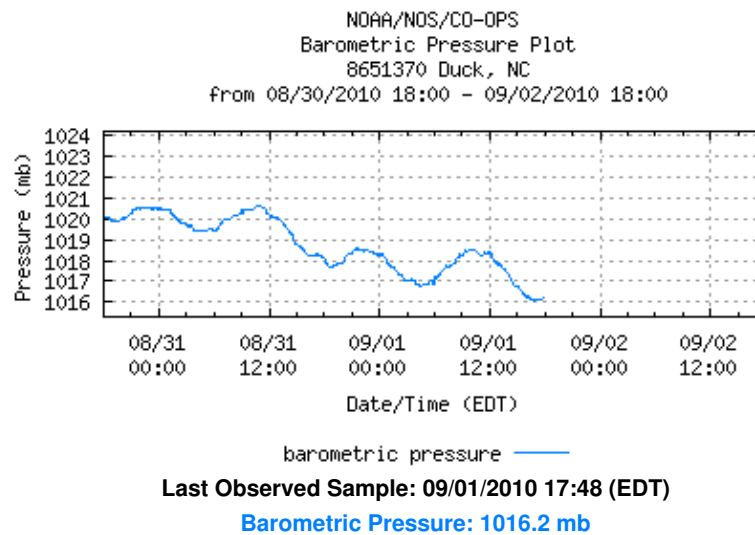
Relative to **MLLW**: **Observed: 1.84 ft.** **Predicted: 1.56 ft.** **Residual: 0.28 ft.**

Historical Maximum Water Level: Aug 30 1999, 3.23 ft. above **MHHW**

Duck, NC - [Return to List](#)



Duck, NC - [Return to List](#)



Hurricane EARL QuickLook, POSTED 18:00 EDT 09/01/2010

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National Oceanic and Atmospheric Administration | U.S. Department of Commerce